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(54) Title: <b>BURNER FOR FABRICATING AEROSOL DOPED WAVEGUIDES</b>

## (57) Abstract

A burner for fabricating aerosol doped planar waveguides which includes a plurality of inlet ports (16, 17, 18, 19) each connected to a respective torch conduit (20, 21, 22, 23); said torch conduit connecting its respective inlet feed to a gas mixing region (24); wherein a gas expansion chamber (25) is provided between at least one of said inlet ports (16, 17, 18, 19) and said gas mixing region (24).